

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1-20 are now present in this application. Claims 1 and 12 are independent. Claims 1, 2, 3, 4, 12, 13 and 14 have been amended.

Reconsideration of this application, as amended, is respectfully requested.

Reasons for Entry of Amendments

At the outset, it is respectfully requested that this Amendment be entered into the Official File in view of the fact that the amendments to the claims automatically place the application in condition for allowance.

In the alternative, if the Examiner does not agree that this application is in condition for allowance, it is respectfully requested that this Amendment be entered for the purpose of appeal. This Amendment reduces the issues on appeal by amending claims 1 and 12 to overcome the rejection under 35 U.S.C. § 112, 1st paragraph. This Amendment was not presented at an earlier date in view of the fact that Applicants did not fully appreciate the Examiner's position until the Final Office Action was reviewed.

Rejection Under 35 U.S.C. § 112, 1st Paragraph

Claims 9-11 and 17-18 stand rejected under 35 U.S.C. § 112, 1st paragraph. This rejection is respectfully traversed.

In particular, the Examiner states that if the common electrode was made of an opaque conductive material, the backlight device would be “unnecessary waste of time and expense” since the light is prevented from entering the liquid crystal layer. The Applicants respectfully disagree.

The Examiner has not shown that the backlight device would be deleterious to the Applicants’ claimed invention. In other words, those of ordinary skill in the art understand that if the backlight device is turned off for the embodiments having an opaque common electrode, the device would still work. On the other hand, those of ordinary skill in the art understand that if the backlight device is turned on for the embodiments having an opaque common electrode, the device would still work.

Still further, the making and/or using the Applicants’ claimed invention is within the grasp of those of ordinary skill in the art. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Rejection Under 35 U.S.C. § 103

Claims 1, 2 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,373,540B1 to Munakata, in view of U.S.

Patent No. 6,196,692B1 to Umemoto et al. (Umemoto). This rejection is respectfully traversed.

While not conceding to the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicants respectfully submit that independent claim 1 has been amended to recite a combination of elements in a liquid crystal display device, including an active layer on the gate insulating layer over the gate electrode, an ohmic contact layer on the active layer, a source electrode on the ohmic contact layer, a drain electrode on the ohmic contact layer, and a first light absorbing film under the gate electrode.

Independent claim 12 has been similarly amended to recite a combination of steps in a method of manufacturing a liquid crystal display device, including forming an active layer on the gate insulating layer over the gate electrode, forming an ohmic contact layer on the active layer, forming a data line and source and drain electrodes, the source electrode on the ohmic contact layer and overlapping one end portion of the active layer, the drain electrode on the ohmic contact layer and overlapping the other end portion of the active layer, the source and drain electrodes spaced apart from each other, the source electrode extending from the data line, said gate, source and drain electrodes comprising a thin film transistor formed on said first substrate, and forming a first light absorbing film under the gate electrode.

Applicants respectfully submit that the combinations of elements recited in independent claims 1 and 12 (as amended) are not disclosed or suggested by the prior art of record, including Munakata.

Munakata teaches a gate electrode 8 having a gate insulating layer 17 disposed upon a surface thereof, and a semiconductor thin film 18 disposed upon a surface of the gate insulating layer 17 (see Munakata, Fig. 2A). However, Munakata fails to teach (or suggest) an ohmic contact layer on an active layer, a source and/or drain on the ohmic contact layer, and a first light absorbing film formed under the gate electrode 8 of Munakata. Umemoto cannot supply the deficiency. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

Ono

Ono was previously applied in combination with Munakata and Umemoto in rejecting claim 2. As the Examiner will note, independent claims 1 and 12 (as amended) recite combinations of features similar to features previously recited in claim 2. In this respect, the Examiner has made several assertions. In light of the Examiner's assertions, the Applicants have provided comments in opposition to the Examiner's position with respect to Ono.

Particularly, Ono teaches a combination of elements including several layers, among which is a gate insulating layer GI having an active layer AS

disposed upon a surface thereof. Disposed upon a surface of the active layer AS, is an ohmic contact layer (d0). It is the Applicants' observation, that Ono does not teach a first light absorbing film under the gate electrode. Further, Ono does not teach a light absorbing film in any location, or in any embodiment which also includes the several layers described above.

The Applicants note that the Examiner has equated ohmic contact layer d0 with a light absorbing film. Further, *the Examiner has taken Official Notice* of the equivalence of a light absorbing film AS formed under the source electrode or data line DL or drain electrode SD1 and a light absorbing light under the gate line or gate electrode for their use in the LCD art and the selection of any of these known equivalents to result in dark display would be within the level of ordinary skill in the art.

The Applicants submit that it is not clear how a light absorbing light being equivalent to a light absorbing film is related to the Examiner's Official Notice. Nevertheless, Applicants seasonably traverse the Examiner's Official Notice, and requests further proof of the statement made by the Examiner. The Applicants also request further explanation of the relevance of the Examiner's statements to the characterization of layer d0 as a light absorbing film (Applicants submit that layer d0 has been improperly characterized as a light absorbing film).

Applicants further submit that Ono does not teach the source electrode on the ohmic contact layer and overlaps one end portion of the active layer, the

drain electrode on the ohmic contact layer and overlaps the other end portion of the active layer, as recited in independent claim 12 (as amended). Particularly, neither DL, nor SD1 overlap edge portions of the active layer AS of Ono (see Fig. 3 of Ono).

Motivation to Combine

The Applicants respectfully submit that there are no combinations of Munakata, Umemoto and Ono that would produce the Applicants' claimed invention. Further, even (*in arguendo*) if a combination of these references could produce the Applicants' claimed invention, the references themselves do not contain any motivation or suggestion to make such a combination.

Dependent Claims

With respect to claim 2, claim 2 depends on claim 1. Since neither Munakata, nor Umemoto discloses or suggests the above-recited features of independent claims 1 and 12 (as amended), Munakata, in view of Umemoto cannot render claims 1-2 and 12 obvious to one of ordinary skill in the art. Ono cannot supply the deficiencies of Munakata and Umemoto. Reconsideration and withdrawal of this art grounds of rejection is respectfully requested.

Claims 3-6 and 13-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Munakata in view Umemoto as applied to claims 1, 2 and 12

above, in view of U.S. Patent No. 5,847,781A to Ono et al. (Ono). Claims 7-8, 15-16 and 19-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Munakata in view Umemoto as applied to claims 1, 2 and 12 above, in view of Ono as applied to claims 3-6 and 13-14. Claims 9-11 and 17-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Munakata in view Umemoto as applied to claims 1, 2 and 12 above, in view of Ono as applied to claims 3-8 and 13-15, and further in view of Lee. These rejections are respectfully traversed.

Munakata and Umemoto, argued above with respect to independent claims 1 and 12, fail to disclose or suggest the combinations of elements recited in independent claims 1 and 12 (as amended). Neither Ono, nor Lee can fill this vacancy.

Claims 3-11 and 13-20 depend, either directly or indirectly on independent claims 1 and 12. Since neither Munakata, nor Umemoto, nor Ono, nor Lee discloses or suggests the above-recited features of independent claims 1 and 12, Munakata, Umemoto, Ono and Lee, either singly, or in combination, cannot render claims 3-11 and 13-20 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of these art grounds of rejection are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

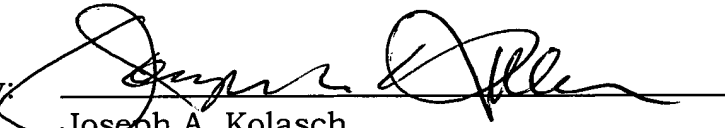
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Percy L. Square, Registration No. 51,084, at (703) 205-8034, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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